IN THE CLAIMS

1. - 22. (Cancelled)

23. (New) Device for producing multilayer, coextruded, tubular preforms made of thermoplastic material, with a coextrusion head (10) with several essentially coaxially arranged flow channels (FK1, FK2), each of which is fed from an individual inlet opening (ZF1, ZF2) with a material melt, which is annularly distributed in a distributor ring (26, 28) and flows along an annular conical frustum, wherein the material melts flow into a common annular flow channel (12) that widens like a funnel, with an annular accumulation chamber (14), in which a displaceable annular piston (16) can reciprocate, and with an annular discharge channel (18) that follows the annular accumulation chamber (14) and has an annular extrusion orifice (20) that can be closed, wherein, as viewed in a longitudinal section through the coextrusion head, the gap width (s1, s5) in the respective distributor ring (26, 28) is greater in the vicinity of the inlet opening (ZF1, ZF2) than the gap width (s2, s6) on the opposite side from the inlet opening (ZF1, ZF2), and that, as viewed in a longitudinal section through the coextrusion head, the gap width (s3, s7) in the respective flow channel (FK1, FK2) is smaller in the vicinity of the inlet opening (ZF1, ZF2) than the gap width (s4, s8) on the opposite side from the inlet opening (ZF1, ZF2).

24. (New) Device in accordance with Claim 23, wherein the mean cross-sectional area (F26, F28) of the respective distributor ring (26, 28) is greater than a mean effective cross-sectional area (FFK1, FFK2) of the corresponding flow channel (FK1, FK2).

25. (New) Device in accordance with Claim 23, wherein each flow channel (FK1, FK2) opens into a first cylindrical ring (22, 24), and wherein the cross-sectional area (F22, F24) of the respective cylindrical ring (22, 24) is greater, preferably twice as great, as the cross-sectional area (FFK1, FFK2) at the end of the corresponding flow channel (FK1, FK2).

26. (New) Device in accordance with Claim 25, wherein the cross-sectional area (F22, F24) of the respective cylindrical ring (22, 24) is at most twice as great as the mean cross-sectional area (F26, F28) of the corresponding distributor ring (26, 28).

27. (New) Device in accordance with Claim 23, wherein a region of quieted flow, which is formed as a common cylindrical ring (34), is provided between the mouth (30), at which several material melts come together, and the point of widening (32), at which the combined material melts enter the common flow channel (12), which widens like a funnel.

28. (New) Device in accordance with Claim 27, wherein the cross-sectional area (F34) of the common cylindrical ring (34) is equal to the sum of the cross-sectional areas (F22, F24) of the first cylindrical rings (22, 24).

29. (New) Device in accordance with Claim 28, wherein the length of the common cylindrical ring (34) is greater than or equal to twice the sum of the annular gaps (s9, s10) of the corresponding cylindrical rings (22, 24).

30. (New) Device in accordance with Claim 23, wherein the funnel-shaped, annular common flow channel (12) is bounded by an inner conical frustum surface (36) and an outer conical frustum surface (38), such that, when viewed in a longitudinal section through the coextrusion head (10), a first angle between the vertical and the inner conical frustum surface (36) is smaller than a second angle between the vertical and the outer conical frustum surface (38).

31. (New) Device in accordance with Claim 23, wherein an annular groove (42) is provided in an outer wall (40) in the vicinity of each flow channel (FK1, FK2), which is configured as an annular conical frustum, and the annular groove holds a baffle (44), which

can be moved into the annular conical frustum to throttle the flow of the material melt.

32. (New) Device in accordance with Claim 31, wherein the inside diameter of the elastic baffle (44) can be varied by means of an adjusting device.

33. (New) Device in accordance with Claim 23, wherein each inlet opening (ZF1, ZF2) is connected with a feeding device (50, 52), which is rigidly connected with the coextrusion head (10) and has a feed recess (54, 56), which further conveys the material melt to the inlet opening (ZF1, ZF2) during the stroke of the annular piston (16), and wherein the material melt is supplied to the feeding device (50, 52) through a rigidly connected extruder line.

34. (New) Device in accordance with Claim 33, wherein the feed recess (54, 56) has a length equal to the stroke of the annular piston (16).

35. (New) Device in accordance with Claim 34, wherein the feeding device (50, 52) is designed as an annular segment.

36. (New) Device in accordance with Claim 33, wherein two feeding devices (50, 52) arranged diametrically to each other are

provided for two different material melts.

37. (New) Device in accordance with Claim 23, wherein each inlet opening (ZF1, ZF2) is connected with a feed cylinder (60), which is rigidly mounted on the displaceable annular piston (16) and holds a movable hollow feed piston (62), which is mounted in a stationary way and to which the material melt is supplied by an extruder line (64) that is rigidly connected with it.

38. (New) Device for producing multilayer, coextruded, tubular preforms made of thermoplastic material, with a coextrusion head (10) with several essentially coaxially arranged flow channels (FK1, FK2), each of which is fed from an individual inlet opening (ZF1, ZF2) with a material melt, which is annularly distributed in a distributor ring (26, 28) and flows along an annular conical frustum, wherein the material melts flow into a common annular flow channel (12) that widens like a funnel, with an annular accumulation chamber (14), in which a displaceable annular piston (16) can reciprocate, and with an annular discharge channel (18) that follows the annular accumulation chamber (14) and has an annular extrusion orifice (20) that can be closed, wherein the funnel-shaped, annular common flow channel (12) is bounded by an inner conical frustum surface (36) and an outer conical frustum surface (38), and wherein, when viewed in a longitudinal section through the coextrusion head (10), a first angle

between the vertical and the inner conical frustum surface (36) is smaller than a second angle between the vertical and the outer conical frustum surface (38).

39. (New) Device in accordance with Claim 38, wherein the first angle is about 0°.

40. (New) Device in accordance with Claim 39, wherein the inner surface (36) is configured as a cylindrical surface.

41. (New) Device for producing multilayer, coextruded, tubular preforms made of thermoplastic material, with a coextrusion head (10) with several essentially coaxially arranged flow channels (FK1, FK2), each of which is fed from an individual inlet opening (ZF1, ZF2) with a material melt, which is annularly distributed in a distributor ring (26, 28) and flows along an annular conical frustum, wherein the material melts flow into a common annular flow channel (12) that widens like a funnel, with an annular accumulation chamber (14), in which a displaceable annular piston (16) can reciprocate, and with an annular discharge channel (18) that follows the annular accumulation chamber (14) and has an annular extrusion orifice (20) that can be closed, wherein an annular groove (42) is provided in an outer wall (40) in the vicinity of each flow channel (FK1, FK2), which is configured as an annular conical frustum, and the annular groove

holds a baffle (44), which can be moved into the annular conical frustum to throttle the flow of the material melt.

42. (New) Device in accordance with Claim 41, wherein the inside diameter of the elastic baffle (44) can be varied by means of an adjusting device.

43. (New) Device for producing multilayer, coextruded, tubular preforms made of thermoplastic material, with a coextrusion head (10) with several essentially coaxially arranged flow channels (FK1, FK2), each of which is fed from an individual inlet opening (ZF1, ZF2) with a material melt, which is annularly distributed in a distributor ring (26, 28) and flows along an annular conical frustum, wherein the material melts flow into a common annular flow channel (12) that widens like a funnel, with an annular accumulation chamber (14), in which a displaceable annular piston (16) can reciprocate, and with an annular discharge channel (18) that follows the annular accumulation chamber (14) and has an annular extrusion orifice (20) that can be closed, wherein each inlet opening (ZF1, ZF2) is connected with a feeding device (50, 52), which is rigidly connected with the coextrusion head (10) and has a feed recess (54, 56), which further conveys the material melt to the inlet opening (ZF1, ZF2) during the stroke of the annular piston (16), and wherein the material melt is supplied to the feeding device (50, 52) through a rigidly connected

extruder line.

44. (New) Device in accordance with Claim 43, wherein the feed recess (54, 56) has a length equal to the stroke of the annular piston (16).

45. (New) Device in accordance with Claim 44, wherein the feeding device (50, 52) is designed as an annular segment.

46. (New) Device in accordance with Claim 43, wherein two feeding devices (50, 52) arranged diametrically to each other are provided for two different material melts.

47. (New) Device in accordance with Claim 43, wherein each inlet opening (ZF1, ZF2) is connected with a feed cylinder (60), which is rigidly mounted on the displaceable annular piston (16) and holds a movable hollow feed piston (62), which is mounted in a stationary way and to which the material melt is supplied by an extruder line (64) that is rigidly connected with it.